

CLAIMS

What is claimed is:

1. A method of archiving a database, comprising the steps of:
storing a plurality of archive logs comprising a plurality of transactions on a host device;
transmitting a plurality of asynchronous streams to a receiving device, wherein the asynchronous streams correspond to a plurality of the archive logs.
2. The method of Claim 1, wherein the plurality of asynchronous streams are transmitted simultaneously.
3. The method of Claim 1 further comprising the steps of:
comparing a plurality of files corresponding to a backup database to a plurality of files of a host database to determine whether there are any corrupt or missing files;
automatically transferring files from the host database to the backup database which have been corrupted or deleted.
4. The method of Claim 1 further comprising the step of transmitting a predetermined number of streams in parallel, wherein the number is set by a user in a config file.

5. The method of Claim 1, wherein the transmitting step runs in cron.

6. The method of Claim 1 further comprising the step of running streaming rsynchs for copying data from the host device to the receiving device.

7. The method of Claim 1 further comprising the step of constructing an array of the plurality of archive logs which are to be transferred from the host device to the receiving device.

8. A method of performing automatic recoveries on an archived database, comprising the steps of:

comparing files residing on a host device to files residing on a backup device;

determining whether there are any missing files by checking for files which exist on the host device and which do not exist on the backup device;

recopying files from the host device over to the backup device which are missing;

determining whether there are any corrupted files by checking for files which have a different size on the host device as compared to corresponding file residing on the backup device;

recopying files from the host device to the backup device which have become corrupted, wherein the automatic recovery process is run by a program without human intervention.

9. The method of Claim 8 further comprising the step of transferring a plurality of files simultaneously from the host device to the backup device.

10. The method of Claim 9, wherein the plurality of files are streamed according to an rsync command.

11. The method of Claim 8, wherein the comparing step comprises the step of performing a rolling checksum.

12. An archival system, comprising:
a backup database for storing a plurality of archive logs which represent data stored on an operational database;
a memory for storing instructions on how data is to be transferred from the operational database to the backup database, wherein the instructions include commands which cause the operational database to stream a plurality of archive logs asynchronously to be copied over to the backup database.

13. The archival system of Claim 12 further comprising instructions stored in memory which automatically compares files on the operational database against files stored on the backup database to determine whether there are any missing or corrupted files and which automatically recopies

2025 RELEASE UNDER E.O. 14176

files from the operational database to the backup database which have been deleted or corrupted.

14. A computer-readable medium having stored thereon instructions for transferring data from a host device to a destination device for archival of data, comprising the steps of:

storing a plurality of archive logs comprising a plurality of transactions on the host device;

transmitting a plurality of asynchronous streams to the destination device, wherein the asynchronous streams correspond to a plurality of the archive logs.

15. The computer-readable medium of Claim 14, wherein the plurality of asynchronous streams are transmitted simultaneously.

16. The computer-readable medium of Claim 14 further comprising the steps of:

comparing a plurality of files corresponding to a backup database to a plurality of files of a host database to determine whether there are any corrupt or missing files;

automatically transferring files from the host database to the backup database which have been corrupted or deleted.

17. A computer-readable medium having stored thereon instructions for performing automatic recoveries on an archived database, comprising the steps of:

- comparing files residing on a host device to files residing on a backup device;
- determining whether there are any missing files by checking for files which exist on the host device and which do not exist on the backup device;
- recopying files from the host device over to the backup device which are missing;
- determining whether there are any corrupted files by checking for files which have a different size on the host device as compared to corresponding file residing on the backup device;
- recopying files from the host device to the backup device which have become corrupted, wherein the automatic recovery process is run by a program without human intervention.

18. The computer-readable medium of Claim 17, wherein the instructions further comprise the step of transferring a plurality of files simultaneously from the host device to the backup device.

19. The computer-readable medium of Claim 17, wherein the plurality of files are streamed according to an rsync command.

20. An apparatus for archiving a database, comprising:

means for storing a plurality of archive logs comprising a plurality of transactions on a host device;

means for transmitting a plurality of asynchronous streams to a receiving device, wherein the asynchronous streams correspond to a plurality of the archive logs.

21. The apparatus of Claim 20, wherein the plurality of asynchronous streams are transmitted simultaneously.

22. The apparatus of Claim 21 further comprising:

means for comparing a plurality of files corresponding to a backup database to a plurality of files of a host database to determine whether there are any corrupt or missing files;

means for automatically transferring files from the host database to the backup database which have been corrupted or deleted.

23. An apparatus for performing automatic recoveries on an archived database, comprising:

means for comparing files residing on a host device to files residing on a backup device;

means for determining whether there are any missing files by checking for files which exist on the host device and which do not exist on the backup device;

means for recopying files from the host device over to the backup device which are missing;

means for determining whether there are any corrupted files by checking for files which have a different size on the host device as compared to corresponding file residing on the backup device;

means for recopying files from the host device to the backup device which have become corrupted, wherein the automatic recovery process is run by a program without human intervention.

24. The apparatus of Claim 23 further comprising means for transferring a plurality of files simultaneously from the host device to the backup device.

2025 RELEASE UNDER E.O. 14176